Vitae of

# Dr. Scott M. Bergeson

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# **Academic History**

Highest degree earned: Ph.D., Biology: Ecology and Evolution, 2017, Indiana State

University, Terre Haute, IN

Additional credentials: M.S., Biology, 2012, Ball State University, Muncie, IN

B.S., Zoology (Minor: Environmental Studies), 2009, Southern Illinois University, Carbondale, IL

# **Work Experience/Appointments**

**Assistant Professor.** Department of Biology. Purdue University – Fort Wayne. Fort Wayne, Indiana. 2019 – Present.

**Visiting Assistant Professor**. Department of Biology. Purdue University – Fort Wayne. Fort Wayne, Indiana. 2017 – 2019.

**Graduate Research and Teaching Assistant**. Department of Biology. Indiana State University. Terre Haute, Indiana. 2012 – 2017.

**Graduate Teaching Assistant**. Department of Biology. Ball State University. Muncie, Indiana. 2010 – 2012.

**Research Technician**. Department of Zoology. Southern Illinois University – Carbondale. Carbondale, Illinois. 2010.

**Research Technician**. Cary Institute of Ecosystem Studies. Millbrook, New York. 2009.

# **Honors and Awards**

- 2015 Ethos Award. Recognized for high-quality and balanced contributions in the areas of teaching, research, and service. Indiana State University. Terre Haute, IN
- 2014 Best Student Oral Presentation, 6<sup>th</sup> Annual Meeting of the Midwest Bat Working Group. Terre Haute, IN

Best Student Poster Presentation,  $6^{th}$  Annual Meeting of the Midwest Bat Working Group. Terre Haute, IN

Best Student Oral Presentation on Bats, 19<sup>th</sup> Annual Meeting of the Southeastern Bat Diversity Network and the 24<sup>th</sup> Colloquium on the Conservation of mammals in the Southeastern United States

2012 Best Student Oral Presentation in the Wildlife Category, 73<sup>rd</sup> Midwest Fish and Wildlife Conference

Dean's Citation for Academic Excellence, Ball State University

Best Student Oral Presentation on Bats,  $17^{th}$  Annual Meeting of the Southeastern Bat Diversity Network and the  $22^{nd}$  Colloquium on the Conservation of mammals in the Southeastern United States

Certificate of Achievement in Recognition of Significant Academic Accomplishments at the Graduate Level, Ball State University

2011 Certificate of Achievement in Recognition of Significant Academic Accomplishments at the Graduate Level, Ball State University

Graduate Merit Fellowship, Ball State University

# **Scholarly Activity**

#### **Grants and Contracts**

#### Extramural Grants, Awarded

- 2019 Indiana Campus Compact. Conference Registration Scholarship. \$450.
- 2018 **Illinois Department of Military Affairs**. A proposal to track Indiana bats on Sparta Training Area. **\$32,295**.
  - **Indiana Campus Compact**. Black Pine Animal Sanctuary Service-Learning Project. **\$1182**.
- 2014 **Indiana Space Grant Consortium**. Flexibility in behavior and thermoregulatory body processes may provide an endangered North American bat species a potential buffer against climate change. **\$12,000**.
- 2013 **Indiana Space Grant Consortium**. Flexibility in behavior and thermoregulatory body processes may provide an endangered North American bat species a potential buffer against climate change. **\$12,000**.

#### Intramural Grants, Awarded

- 2015 College of Graduate and Professional Studies Student Research Grant. Flexibility in behavior and thermoregulation strategies may provide the endangered Indiana bat a buffer against climate change. \$600.
- 2013 College of Graduate and Professional Studies Student Research Grant.
  Assessing the effectiveness of ambient temperature sensitive transmitters in measuring the internal ambient temperature of bat roosts. \$600.

## Extramural Grants, Not Awarded

- 2013 **Bat Conservation International Student Research Scholarship**. Flexibility in roosting behavior and thermoregulation strategies may provide the endangered Indiana bat a buffer against climate change. \$2,799.
  - **Indiana Academy of Science Senior Research Grant**. Flexibility in behavior and thermoregulation strategies may provide the endangered Indiana bat a bugger against climate change. \$1,165.
  - **Sigma Xi Grants-in-Aid of Research**. Assessing the effectiveness of ambient temperature sensitive transmitters in measuring the internal ambient temperature of bat roosts. \$495.
- 2012 **Critter Catchers Bat Conservation Scholarship**. Conservation of Indiana bats through the collection of thermoregulation data. \$1,000.

## **Scholarly Publications**

#### **Peer-Reviewed Publications**

- **5. Bergeson. S.M.,** J.M. O'Keefe, and G.S. Haulton. 2018. Managed forests provide roosting opportunities for Indiana bats in south-central Indiana. Forest Ecology and Management 427, 305–316.
- **4. Bergeson, S.M.**, T.C. Carter, and M.D. Whitby. 2015. Adaptive roosting gives little brown bats an advantage over endangered Indiana bats. The American Midland Naturalist 174, 321–331.
- **3.** Whitby, M.D., T.C. Carter, E.R. Britzke, and **S.M. Bergeson**. 2014. Evaluation of mobile acoustic techniques for bat population monitoring. Acta Chiropterologica 16, 223–230.
- **2. Bergeson, S.M.**, T.C. Carter, and M.D. Whitby. 2013. Partitioning of foraging resources between sympatric Indiana and little brown bats. Journal of Mammalogy 94, 1311–1320.
- 1. Whitby, M.D., S.M. Bergeson, T.C. Carter, S. Rutan, and R. McClanahan. 2013. The discovery of a reproductive population of eastern small-footed bat, *Myotis leibii*, in Southern Illinois using a novel survey method. The American Midland Naturalist 169, 229–233.

#### Manuscripts Submitted for Peer-Review

**1. Bergeson. S.M.**, J.B. Holmes, and J.M. O'Keefe. 2017. Indiana bat roosting behavior varies with degree of forest fragmentation. Journal of Wildlife Management. Result: Rejected; resubmited to Urban Ecosystems.

#### Manuscripts In-Prep

**1. Bergeson. S.M.**, J.M. O'Keefe, and R.M. Brigham. Reproductive stage and roost characteristics influence thermoregulatory responses to weather by Indiana bats.

- **2. Bergeson. S.M.** and J.M. O'Keefe. Microclimates affect bat box used by an Indiana bat maternity colony.
- **3. Bergeson. S.M.** and T.C. Carter. Investigating the suitability of little brown bats (*Myotis lucifugus*) as surrogates for Indiana bat (*Myotis sodalis*) summer research and management.

#### **Grey Literature**

- 2016 Monitoring program for the Indiana Myotis (Myotis sodalis) near the six points interchange in Hendricks and Marion counties, Indiana as required under the six points interchange habitat conservation plan. 5 Annual Reports, presented to the Indianapolis Airport Authority. *Also conducted in 2012–2015*.
  - Bat survey at the Hardwood Ecosystem Experiment project site acoustic sampling, mist-netting, foraging and roost telemetry. 5 Annual Reports, presented to Purdue University and the Indiana Department of Natural Resources. *Also conducted in 2012–2015*.
- 2015 Re-survey for bats on Sparta Training Area. Final Consultation Report, presented to Sparta National Guard Training Area. *Also conducted in 2012*.
- 2014 Re-survey for bats on Marseilles Training Area. 2 Final Consultation Reports, presented to Marseilles National Guard Training Area. *Also conducted in 2012*.
- 2011 Monitoring Indiana bat maternity colonies in Southern Illinois. 2 Annual Reports, presented to the U.S. Forest Service (Shawnee National Forest). *Also conducted in 2010*.

#### **Selected Presentations at Professional Conferences (15 out of 43)**

- **Bergeson, S.M.**, and J.M. O'Keefe. 2019. Managed forests provide roosting opportunities for Indiana bats in south-central Indiana. 79th Midwest Fish and Wildlife Conference. Cleveland, OH.
- **Bergeson, S.M.**, and J.M. O'Keefe. 2018. Managed forests provide roosting opportunities for Indiana bats in south-central Indiana. 25<sup>th</sup> Annual Wildlife Society Conference. Cleveland, OH.
- Le, M., **S.M. Bergeson**, and M. Jordan. 2018. The genetic contribution of small-mouthed salamanders to unisexual salamander's genome. 21<sup>st</sup> Annual Student Research and Creative Endeavor Symposium. Fort Wayne, IN. **Undergraduate Advisee Presentation.**
- **Bergeson, S.M.**, J.M. O'Keefe, and R.M. Brigham. 2017. Thermoregulatory flexibility of the Indiana bat in response to weather variation. 22nd Annual Meeting of the southeastern Bat Diversity Network and the 27th Colloquium on the Conservation of Mammals in the Southeastern United States. Asheville, NC.
- **Bergeson, S.M.**, J.M. O'Keefe, and R.M. Brigham. 2016. *Myotis sodalis* thermoregulatory flexibility. 46th North American Symposium on Bat Research. San Antonio, TX.

- **Bergeson, S.M.**, J.B. Holmes, and J.M. O'Keefe. 2016. Variation in primary and secondary roosts could affect management strategies in two Indiana landscapes. 21st Annual Meeting of the southeastern Bat Diversity Network and the 26th Colloquium on the Conservation of Mammals in the Southeastern United States. Guntersville, AL. **Undergraduate Advisee Presentation.**
- **Bergeson, S.M.**, and J.M. O'Keefe. 2015. Indiana bats don't all roost in Indiana!: Variation in roost and landscape characteristics across the species' range. North American Joint Bat Working Group Meeting. Saint Louis, MO.
- **Bergeson, S.M.**, and J.M. O'Keefe. 2015. *Myotis sodalis* roost selection in a managed forest. 75th Midwest Fish and Wildlife Conference. Indianapolis, IN.
- **Bergeson, S.M.**, and J.M. O'Keefe. 2014. Don't forget the guys! Male Indiana bat roost selection in a managed forest. 6th Annual Meeting of the Midwest Bat Working Group. Terre Haute, IN. *Awarded Best Student Oral Presentation Award*.
- **Bergeson, S.M.**, and J.M. O'Keefe. 2014. Male Indiana bat roosting ecology in a managed forest. 19th Annual Meeting of the Southeastern Bat Diversity Network and the 24rd Colloquium on the Conservation of Mammals in the Southeastern United States. Nacogdoches, TX. *Awarded SBDN Best Student Oral Presentation on Bats Award*.
- J.H. Cox III, **S. M. Bergeson**, and J.M. O'Keefe. 2013. Effectiveness of ambient temperature sensitive transmitters in measuring bat roost temperature. 6th Annual Meeting of the Midwest Bat Working Group. Terre Haute, IN. *Awarded Best Student Poster Presentation Award*. Undergraduate Advisee Presentation.
- **Bergeson, S.M.**, J.M. O'Keefe, H.A. Badin, and T.C. Carter. 2013. The effects of timber harvest on the bats of the Hardwood Ecosystem Experiment project area. 9th North American Forest Ecology Workshop. Bloomington, Indiana.
- **Bergeson, S.M.**, J.M. O'Keefe, K.R. Hammond. 2013. Plasticity in thermoregulatory behaviors may provide the endangered *Myotis sodalis* a buffer against climate change. 16th International Bat Research Conference and 43rd North American Symposium on Bat Research. San Jose, Costa Rica.
- **Bergeson, S.M.**, M.D. Whitby, and T.C. Carter. 2012. Do little brown bats (*Myotis lucifugus*) make effective surrogates for endangered Indiana bats (*Myotis sodalis*)? 17th Annual Meeting of the Southeastern Bat Diversity Network and the 22nd Colloquium on the Conservation of Mammals in the Southeastern United States. Louisville, MS. *Awarded SBDN Best Student Oral Presentation on Bats Award*.
- Ruhrold, K.A., **S.M. Bergeson**, T.C. Carter. 2012. A comparison of the microhabitat associations of the meadow vole (*Microtus pennsylvanicus*) and *Peromyscus spp*. Butler University Undergraduate Research Conference. Indianapolis, IN. **Undergraduate** Advisee Presentation.

#### **Invited Seminars**

Bergeson, S.M. 2018. Can you use a common bat species as a surrogate for the conservation of an endangered one? Senior Seminar Series, Department of Biology, Purdue University Fort Wayne.

Bergeson, S.M. 2018. Effective conservation of roosting habitat for the endangered Indiana bat. Senior Seminar Series, Department of Biology, Indiana-Purdue University Fort Wayne.

Bergeson, S.M. 2012. Holy home ranges, batman!! Little brown bats are not suitable surrogates for Indiana bats!. Ball State Chapter of The Wildlife Society Meeting, Department of Biology, Ball State University.

## **Other Scholarly Activity**

Christopher Forest. 2018. The Animal Files: We Need Bats. Focus Readers, Lake Elmo, MN. *Content Reviewer*.

# **Teaching**

#### **Course Instruction**

Academic Session	Course Prefix and Number	Course Title	Role	Contact Hrs (Per Week)	Enrollment
<b>Purdue Universi</b>	ity - Fort Wayne				
Fall 2019	BIOL10000-01	Intro to the Biological World	IOR	3	100
	BIOL10000-02	Intro to the Biological World	IOR	3	75
	BIOL49100	Biology Senior Seminar	IOR	3	20
Summer 1 2019	BIOL10000	Intro to the Biological World	IOR	3	10
Spring 2019	BIOL10000-01	Intro to the Biological World	IOR	3	100
	BIOL10000-02	Intro to the Biological World	IOR	3	100
	BIOL33500	Animal Behavior	IOR	3	30
Fall 2018	BIOL10000-01	Intro to the Biological World	IOR	3	100
	BIOL10000-02	Intro to the Biological World	IOR	3	75
	BIOL21700-Lab	Intermediate Ecology	IOR	1	25
	BIOL59500	Research in Wildlife Biology	IOR	1	1
Summer 1 2018	BIOL10000	Intro to the Biological World	IOR	3	10
Spring 2018	BIOL10000	Intro to the Biological World	IOR	3	63
	BIOL21600	Mammalian Physiology	IOR	3	10
	BIOL34500	Vertebrate Biology	IOR	3	30
Fall 2017	BIOL10000	Intro to the Biological World	IOR	3	98
	BIOL21700	Intermediate Ecology	IOR	3	69
	BIOL21700-Lab	Intermediate Ecology	IOR	1	30

Indiana State University								
Spring 2016	BIO 102-Lab	Principles of Biology 2	TA	1	50			
	BIO 350-Lab	<b>Ecology and Evolution</b>	TA	1	60			
Fall 2015	BIO 101-Lab	Principles of Biology 1	TA	1	20			
Ball State University								
Spring 2012	BIO 111-Lab	Principles of Biology 2	TA	1	75			
	BIO 420/520	Field Studies of Distant Areas	TA	2	14			
Fall 2011	BIO 111-Lab	Principles of Biology 2	TA	1	75			
Spring 2011	ZOOL 446	Mammalogy	TA and Lect.	3	30			
	BIO 111-Lab	Principles of Biology 2	TA	1	75			
Fall 2010	ZOOL 483	Wildlife Biology	TA	3	30			

Note: IOR refers to "Instructor of Record"

### **Courses developed**

2016 Sycamore Summer STEM Starter. Online Course. Developed to help incoming STEM students get the STEM background they need to succeed during their 1<sup>st</sup> year of higher education.

### **Teaching Research**

I endeavor to include graduates (1 student), undergraduates (29 students), and high school students (1 student) in my research, primarily as volunteers/technicians that help me collect data. However, I have also been able to mentor students as they have conducted their own, directed, research (7 students). Most of these students receive research experience from this interaction. However, several have received research credits, teaching experience, and an honors thesis. Several students have also presented their research at regional and national professional conferences (4 students; 1 was awarded "best student poster award"). I am also working with 2 students to publish separate manuscripts in peer-reviewed journals.

#### **Guest Lectures**

Endangered species at the Airport. Indiana University Environmental Law Class.
 Bats and climate change. Vigo South High School 4<sup>th</sup> and 5<sup>th</sup> Hour Biology Classes.
 Bats and climate change. Vigo North High School AP Environmental Science Class.
 Mammal taxidermy. Indiana State University Mammalogy Class.

2013 Dam lecture. Indiana State University Aquatic Ecology Class.

#### **Teaching Workshops/Conferences Attended**

2018 Fort Wayne Teaching and Learning Conference

- IPFW CELT Fall Teaching Conference
- Is Your Syllabus a Contract?. PFW CELT Workshop
- 2017 IPFW CELT New Faculty Institute Workshops

#### **Other Teaching Activity**

- 2018 Reviewed Textbook: Bowman, W.D., S.D. Hacker, and M.L. Cain. Ecology, 5<sup>th</sup> Edition. Sinauer Associates, INC. Sunderland, MA, U.S.A. Oxford University Press.
- 2017 Updated methods for assessing General Education Learning Outcomes in a biology GenEd course (BIOL10000, Introduction to the Biological World).

# **Service**

### **Service to the Public Community**

- 2019 Meet Your Local Bats! Little River Wetlands Project. Fort Wayne, IN.
  - Short Hikes for Short Legs: Become a Bat Biologist. Little River Wetlands Project. Fort Wayne, IN.
- 2018 Challenges Facing the Conservation of Bats in Northeastern Indiana. Conservation Conversation: an Earth Day Celebration, Indiana-Purdue University Fort Wayne Environmental Resources Center. Fort Wayne, IN.
  - Indiana Master Naturalist Class Mammalogy. Indiana Department of Natural Resources. Pokagon State Park, Angola, IN.
- 2016 Bats of the Midwest. Information Table. Clay County Nature Days (Brazil, IN), Saint Mary-of-the-Woods Earth Day (Saint Mary-of-the-Woods, IN), Indiana State University Earth Day (Terre Haute, IN), GardenFest (Martinsville, IN). *Also conducted in 2013–2015*.
  - Board member at large. Wabash Audubon Society, Terre Haute, IN. *Also conducted in 2015*.
  - How to be a bat biologist, children's interactive STEM activity. Indiana Bat Festival, Terre Haute, IN. *Also conducted in 2013–2015*.
  - Bats and science!, children's interactive STEM activity. Indiana State University Science Camp, Terre Haute, IN.
- 2015 How to research bats in the Midwest. Outreach Presentation. Indiana Bat Festival, Terre Haute, IN. *Also conducted in 2013–2014*.
- 2014 Bats and science! Outreach Presentation. Cub Scout Patrol Meeting, Terre Haute, IN.
  Bats furry birds and climate change. Outreach Presentation. Wabash Valley Audubon Society, Terre Haute, IN.

Effects of climate change on bats. Permanent Glass Display Case, Indiana State University, Science Building 2<sup>nd</sup> Floor, Terre Haute, IN.

2013 Bats and climate change. Outreach Presentation Indiana Bat Festival, Terre Haute, IN.

Bats of our town, public emergence count. Outreach Presentation. Saint Mary-of-the-Woods Earth Day, Saint Mary-of-the-Woods, IN.

2012 Managing your forests for bats. Outreach Presentation. Indiana Forestry and Woodland Owners Association Annual Landowner Conference, Nashville, IN.

Bats in Indiana and bat research (Live Bats!). Outreach Presentation. Robert Cooper Audubon Society, Muncie, IN.

Bats in Indiana (Live Bats!). Outreach Presentation. Family Math & Science Night, Mitchell Elementary School, Muncie, IN.

Methods for managing forests for bats. Informational Flyer.

2011 Environmental science, children's interactive STEM activity, Ball State University's Girl Scout Science Day, Muncie, IN.

#### **Service to Scientific Organizations**

Membership Committee Co-Chair. Southeastern Bat Diversity Network. 2015–Present.

Website Committee Member. Midwest Bat Working Group. 2014–Present.

Affiliate of the Center for Bat Research, Outreach, and Conservation. Indiana State University. Terre Haute, Indiana. 2012 – 2017.

Blossom Hollow and Glacier's End Nature Preserve Bio Blitz. Indiana Academy of Science. Johnson County, IN. 2015.

Southeastern Bat Diversity Bat Blitz Crew Leader. Palmetto Bluff, SC. 2015.

Southeastern Bat Diversity Network Bat Blitz Participant. Apalachicola, FL; Crossnore, NC; Chatsworth, GA. 2010–2012.

Kankakee Sands Nature Preserve Bio Blitz. Indiana Academy of Science. Morocco, IN. 2012.

John Craddock Wetland Nature Preserve Bio Blitz Crew Leader. Muncie, IN. 2010–2012.

Conference Registration Staff. 2<sup>nd</sup> Joint Meeting of the Northeastern Bat Working Group, Midwest Bat Working Group, and the Southeastern Bat Diversity Network, Louisville, KY. 2011.

# Scientific Manuscript and Animal Care and Use Protocol Reviews

Acta Chiropterologia (1)

Canadian Journal of Zoology (1)

Journal of Mammalogy (2)

Journal of Wildlife Management (2)

Revista Ecuatoriana de Medicina y Ciencias Biólogicas (1)

University of Prince Edward Island Animal Care Protocol Review (1)

Western North American Naturalist (2)

Wildlife Society Bulletin (1)

# **Professional Memberships**

American Association for the Advancement of Science. 2012 – 2017.

American Society of Mammologists. 2012 – Present.

Eastern Small-Footed Bat Working Group. 2013 – Present.

Midwest Bat Working Group. 2012 – Present.

North American Society for Bat Research. 2012 – Present

Society for the Study of Amphibians and Reptiles. 2009 – 2010.

Southeastern Bat Diversity Network. 2010 – Present

Western Bat Working Group. 2011.

The Wildlife Society. 2010 – Present.

The Wildlife Society – Ball State University Chapter. 2010 – 2012.

The Wildlife Society – Southern Illinois University Carbondale Chapter. 2008 – 2010.